ELSEVIER

Biochemical Pharmacology 65 (2003) 2101–2114

Biochemical Pharmacology

www.elsevier.com/locate/biochempharm

Contents of Volume 65

1 January 2003

Commentary

1 Small molecule antagonists of proteins
Thomas R. Gadek and John B. Nicholas

Rapid Communication

9 U50,488 inhibits HIV-1 Tat-induced monocyte chemoattractant protein-1 (CCL2) production by human astrocytes
Wen S. Sheng, Shuxian Hu, James R. Lokensgard and Phillip K. Peterson

MOLECULAR AND CELLULAR PHARMACOLOGY

15 Altered lymphocyte catecholamine reactivity in mice subjected to chronic mild stress
Valeria Ayelli Edgar, Dafne Magalí Silberman, Graciela A. Cremaschi, Luis M. Zieher and Ana María Genaro

25 Plasma stability of two glycosyl indolocarbazole antitumor agents
Jean-François Goossens, Jérôme Kluza, Hervé Vezin, Mustapha Kouach, Gilbert Briand, Brigitte Baldeyrou, Nicole Wattez and Christian Bailly

35 Potent inhibitory effect of naturally occurring flavonoids quercetin and kaempferol on *in vitro* osteoclastic bone resorption
Alice Wattel, Said Kamel, Romuald Mentaverri, Florence Lorget, Christophe Prouillet, Jean-Pierre Petit, Patrice Fardelonne and Michel Brazier

43 Reactive oxygen species are involved in the stimulation of the mitochondrial permeability transition by dihydrolipoate
Sarune Morkunaite-Haimi, Alexey G. Kruglov, Vera V. Teplova, Klaus Stolze, Lars Gille, Hans Nohl and Nils-Erik L. Saris

51 Sodium tanshinone IIA sulfonate mediates electron transfer reaction in rat heart mitochondria
Guangyin Zhou, Wen Jiang, Yan Zhao, Guangén Ma, Wenjuan Xin, Junjie Yin and Baolu Zhao

59 The antioxidant activity of caroverine
Natalia Udilova, Andrey V. Kozlov, Werner Bieberschulte, Klemens Frei, Klaus Ehrenberger and Hans Nohl

67 Antioxidant and pro-oxidant properties of pyrroloquinoline quinone (PQQ): implications for its function in biological systems
Kai He, Hitoshi Nukada, Teiji Urakami and Michael P. Murphy

75 Reversal of P-glycoprotein-mediated multidrug resistance by ginsenoside Rg_3
Seung-Whan Kim, Hyog-young Kwon, Dong-Whan Chi, Jai-Heon Shim, Jong-Dae Park, You-Hui Lee, Suhkneung Pyo and Dong-Kwon Rhee

83 Inhibition of acetylcholine-mediated effects by borneol
Tae-Ju Park, Yong-Soo Park, Tae-Gyun Lee, Hyunjung Ha and Kyong-Tai Kim

91 Modulation by caspases of tumor necrosis factor-stimulated c-Jun N-terminal kinase activation but not nuclear factor-κB signaling
Alison F. Littlejohn, Steven J. Tucker, Ahmed A.A. Mohamed, Stephen McKay, Matt J. Helms, Peter Vandenabeele and David J. MacEwan

101 Evaluation of oxidative stress during apoptosis and necrosis caused by D-galactosamine in rat liver
Fang Sun, Eri Hamagawa, Chihiro Tsutsui, Naomi Sakaguchi, Yuri Kakuta, Sadako Tokumaru and Shosuke Kojo

CHEMOTHERAPY AND METABOLIC INHIBITORS

109 Preclinical factors influencing the relative contributions of Phase I and II enzymes to the metabolism of the experimental anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid
Shufeng Zhou, Philip Kestell, Bruce C. Baguley and James W. Paxton

121 Influence of p53 and $p21^{WAF1}$ expression on sensitivity of cancer cells to cladribine

doi:10.1016/S0006-2952(03)00323-X

Carlos María Galmarini, Nathalie Voorzanger, Nicole Falette, Lars Jordheim, Emeline Cros, Alain Puisieux and Charles Dumontet

NEUROSCIENCE

131 Neuronal death signaling by β-bungarotoxin through the activation of the *N*-methyl-D-aspartate (NMDA) receptor and L-type calcium channel
Wen-Pei Tseng and Shoei-Yn Lin-Shiau

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

143 Pharmacology of vanilloids at recombinant and endogenous rat vanilloid receptors
Vera Ralevic, Jeffrey C. Jerman, Stephen J. Brough, John B. Davis, Julie Egerton and Darren Smart

15 January 2003

Commentary

153 Advances in the pathophysiology of constitutive and inducible cyclooxygenases: two enzymes in the spotlight
Luca Parente and Mauro Perretti

MOLECULAR AND CELLULAR PHARMACOLOGY

161 Pyridoxal isonicotinoyl hydrazone analogs induce apoptosis in hematopoietic cells due to their iron-chelating properties
Joan L. Buss, Jiri Neuzil, Nina Gellert, Christian Weber and Prem Ponka

173 Oversulfation of fucoidan enhances its anti-angiogenic and antitumor activities
Satoru Koyanagi, Noboru Tanigawa, Hiroo Nakagawa, Shinji Soeda and Hiroshi Shimeno

181 Human mitochondrial and cytosolic branched-chain aminotransferases are cysteine *S*-conjugate β-lyases, but turnover leads to inactivation
Arthur J.L. Cooper, Sam A. Bruschi, Myra Conway and Susan M. Hutson

193 Yessotoxin, a novel phycotoxin, activates phosphodiesterase activity. Effect of yessotoxin on cAMP levels in human lymphocytes
Amparo Alfonso, Laura de la Rosa, Mercedes R. Vieytes, Takeshi Yasumoto and Luis M. Botana

209 Effect of metamizol on promyelocytic and terminally differentiated granulocytic cells. Comparative analysis with acetylsalicylic acid and diclofenac
José Manuel García-Martínez, Juan Ángel Fresno Vara, Pedro Lastres, Carmelo Bernabéu, Pablo Ortiz Betés and Jorge Martín-Pérez

219 The effects of cladribine and fludarabine on DNA methylation in K562 cells
Dorota Wyczechowska and Krystyna Fabianowska-Majewska

227 The involvement of diadenosine 5′,5‴-P^1,P^4-tetraphosphate in cell cycle arrest and regulation of apoptosis
Amalia A. Vartanian, H. Suzuki and Andrey I. Poletaev

237 Down-regulation of deoxycytidine kinase in human leukemic cell lines resistant to cladribine and clofarabine and increased ribonucleotide reductase activity contributes to fludarabine resistance
Emma Månsson, Emma Flordal, Jan Liliemark, Tatiana Spasokoukotskaja, Howard Elford, Svetlana Lagercrantz, Staffan Eriksson and Freidoun Albertioni

249 Development of insulin resistance and reversal by thiazolidinediones in C2C12 skeletal muscle cells
Naresh Kumar and Chinmoy S. Dey

259 Effects of glycolipids from spinach on mammalian DNA polymerases
Chikako Murakami, Taeko Kumagai, Takahiko Hada, Ui Kanekazu, Satoshi Nakazawa, Shinji Kamisuki, Naoki Maeda, Xianai Xu, Hiromi Yoshida, Fumio Sugawara, Kengo Sakaguchi and Yoshiyuki Mizushina

269 Vitamin E activates gene expression via the pregnane X receptor
Nico Landes, Paul Pfluger, Dirk Kluth, Marc Birringer, Ralph Rühl, Gaby-Fleur Böl, Hansruedi Glatt and Regina Brigelius-Flohé

CHEMOTHERAPY AND METABOLIC INHIBITORS

275 DNA repair mechanisms involved in gemcitabine cytotoxicity and in the interaction between gemcitabine and cisplatin
Mirjam Crul, Robert C.A.M. van Waardenburg, Suzanne Bocxe, Maria A.J. van Eijndhoven, Dick Pluim, Jos H. Beijnen and Jan H.M. Schellens

HORMONES AND GROWTH FACTORS

283 Cooperative enhancement of insulinotropic action of GLP-1 by acetylcholine uncovers paradoxical inhibitory effect of beta cell muscarinic receptor activation on adenylate cyclase activity
João C. Miguel, Yasser H.A. Abdel-Wahab, Brian D. Green, Paulo C.F. Mathias and Peter R. Flatt

293 Effects of high glucose on cytokine-induced nerve growth factor (NGF) expression in rat renal mesangial cells

Klaus Heese, Karl-Friedrich Beck, Meik Helmut Behrens, Katharina Plüss, Wolfgang Fierlbeck, Andrea Huwiler, Heiko Mühl, Helmut Geiger, Uwe Otten and Josef Pfeilschifter

INFLAMMATION AND IMMUNOPHARMACOLOGY

303 Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets

Sabrina Devos, Karolien De Bosscher, Bart Staels, Ellinor Bauer, Frank Roels, WimVanden Berghe, Guy Haegeman, Robert Hooghe and Elisabeth L. Hooghe-Peters

1 February 2003

Commentary

309 Anthrax toxin receptor proteins

Kenneth A. Bradley and John A.T. Young

Rapid Communication

315 Potent inhibition of human folylpolyglutamate synthetase by a phosphinic acid mimic of the tetrahedral reaction intermediate

John J. McGuire, William H. Haile, Nadya Valiaeva, David Bartley, Jianxia Guo and James K. Coward

MOLECULAR AND CELLULAR PHARMACOLOGY

319 Bullatacin, a potent antitumor Annonaceous acetogenin, induces apoptosis through a reduction of intracellular cAMP and cGMP levels in human hepatoma 2.2.15 cells

Hui-Fen Chiu, Tsai-Tung Chih, Yun-Mei Hsian, Chih-Hua Tseng, Ming-Jung Wu and Yang-Chang Wu

329 Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells

Jacquie L. Harper, Carol S. Camerini-Otero, An-Hu Li, Soon-Ai Kim, Kenneth A. Jacobson and John W. Daly

339 Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism

Katsuhiko Yamada, Kayo Arita, Hirotsugu Kobuchi, Shinji Yamamoto, Tamotsu Yoshioka, Hiroshi Tamai and Kozo Utsumi

349 Lipophilicity of analogs of pyridoxal isonicotinoyl hydrazone (PIH) determines the efflux of iron complexes and toxicity in K562 cells

Joan L. Buss, Emmanuele Arduini, Kyle C. Shephard and Prem Ponka

361 Relevance of mitogen activated protein kinase (MAPK) and phosphotidylinositol-3-kinase/protein kinase B (PI3K/PKB) pathways to induction of apoptosis by curcumin in breast cells

Matthew S. Squires, E. Ann Hudson, Lynne Howells, Stewart Sale, Catherine E. Houghton, J. Louise Jones, Louise H. Fox, Martin Dickens, Sally A. Prigent and Margaret M. Manson

377 Effects of rhein on human articular chondrocytes in alginate beads

Christelle Sanchez, Marianne Mathy-Hartert, Michelle A. Deberg, Herve Ficheux, Jean-Yves L. Reginster and Yves E. Henrotin

389 The $Cl^-HCO_3^-$ exchanger slows the recovery of acute pH_i changes in rat mast cells

Natalia Vilariño, Laura A. de la Rosa, Mercedes R. Vieytes and Luis M. Botana

397 Endothelium-dependent and -independent relaxation and VASP serines 157/239 phosphorylation by cyclic nucleotide-elevating vasodilators in rat aorta

Andreas Schäfer, Mick Burkhardt, Tobias Vollkommer, Johann Bauersachs, Thomas Münzel, Ulrich Walter and Albert Smolenski

407 β-Amyloid aggregation induced by human acetylcholinesterase: inhibition studies

Manuela Bartolini, Carlo Bertucci, Vanni Cavrini and Vincenza Andrisano

417 Glucosidation of hyodeoxycholic acid by UDP-glucuronosyltransferase 2B7

Peter Mackenzie, Joanna M. Little and Anna Radominska-Pandya

CHEMOTHERAPY AND METABOLIC IINHIBITORS

423 Apoptosis and TRAF-1 cleavage in Epstein-Barr virus-positive nasopharyngeal carcinoma cells treated with doxorubicin combined with a farnesyl-transferase inhibitor

Jean-Michel Vicat, Hector Ardila-Osorio, Abdelmajid Khabir, Marie-Christine Brezak, Isabelle Viossat, Philip Kasprzyk, Rachid Jlidi, Paule Opolon, Tadamassa Ooka, Grégoire Prevost, Dolly P. Huang and Pierre Busson

NEUROSCIENCE

435 Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes

Ahcène Hameg, Franck Bayle, Philippe Nuss, Philippe Dupuis, Ricardo P. Garay and Michel Dib

GENE EXPRESSION AND DEVELOPMENT

441 Effect of genotype on steady-state *CYP1A1* gene expression in human peripheral lymphocytes
Seymour Garte, Sabya Ganguly and Emanuela Taioli

STRUCTURAL BIOLOGY

447 Probing the binding of the flavonoid, quercetin to human serum albumin by circular dichroism, electronic absorption spectroscopy and molecular modelling methods
Ferenc Zsila, Zsolt Bikádi and Miklós Simonyi

INFLAMMATION AND IMMUNOPHARMACOLOGY

457 Suppression of tumor necrosis factor-α and inducible nitric oxide synthase gene expression by THI 52, a new synthetic naphthyl-benzylisoquinoline alkaloid
Young J. Kang, Bog K. Lee, Young S. Lee, Han G. Seo, Min K. Park, Hyo J. Kim, Hyang S. Pyo, Won S. Chong, Hye J. Jung, Hye S. Yun-Choi, Duck H. Lee and Ki C. Chang

465 Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes
A. Alfonso, L.A. De la Rosa, M.R. Vieytes and L.M. Botana

GASTROINTESTINAL AND RENAL PHARMACOLOGY

479 Metabolism of quercetin-7- and quercetin-3-glucuronides by an *in vitro* hepatic model: the role of human β-glucuronidase, sulfotransferase, catechol-*O*-methyltransferase and multi-resistant protein 2 (MRP2) in flavonoid metabolism
Karen A. O'Leary, Andrea J. Day, Paul W. Needs, Fred A. Mellon, Nora M. O'Brien and Gary Williamson

15 February 2003

Commentary

493 Use of the A_{2A} adenosine receptor as a physiological immunosuppressor and to engineer inflammation *in vivo*
Michail V. Sitkovsky

MOLECULAR AND CELLULAR PHARMACOLOGY

503 Apoptosis induction by the dual-action DNA- and protein-reactive antitumor drug irofulven is largely Bcl-2-independent
Maryanne C.S. Herzig, Alex V. Trevino, Huiyun Liang, Richard Salinas, Stephen J. Waters, John R. MacDonald, Barbara A. Woynarowska and Jan M. Woynarowski

515 Interactions of peroxynitrite and other nitrating substances with human platelets: the role of glutathione and peroxynitrite permeability
Maria Lufrano and Michael Balazy

525 Differential allosteric modulation by amiloride analogues of agonist and antagonist binding at A_1 and A_3 adenosine receptors
Zhan-Guo Gao, Neli Melman, Andreas Erdmann, Seong Gon Kim, Christa E. Müller, Adriaan P. IJzerman and Kenneth A. Jacobson

535 Impaired receptor-mediated endocytosis by the asialoglycoprotein receptor in ethanol-fed mice: implications for studying the role of this receptor in alcoholic apoptosis
Shana R. Dalton, Robert L. Wiegert, Cheryl R. Baldwin, Karen M. Kassel and Carol A. Casey

545 Uroporphyrin accumulation in hepatoma cells expressing human or mouse CYP1A2: relation to the role of CYP1A2 in human porphyria cutanea tarda
Ralph C. Nichols, Sandra Cooper, Heidi W. Trask, Nadia Gorman, Timothy P. Dalton, Daniel W. Nebert, Jacqueline F. Sinclair and Peter R. Sinclair

551 The voltage- and time-dependent blocking effect of trifluoperazine on T lymphocyte Kv1.3 channels
Andrzej Teisseyre and Krystyna Michalak

563 Selective activation of deoxycytidine kinase by thymidine-5′-thiosulphate and release by deoxycytidine in human lymphocytes
Gergely Keszler, Karoly Szikla, Zygmunt Kazimierczuk, Tatjana Spasokoukotskaja, Maria Sasvari-Szekely and Maria Staub

573 Activation of deoxycytidine kinase by UV-C-irradiation in chronic lymphocytic leukemia B-lymphocytes
Eric Van Den Neste, Caroline Smal, Sabine Cardoen, Anne Delacauw, Joëlle Frankard, Augustin Ferrant, Georges Van den Berghe and Françoise Bontemps

581 Effect of arvanil (*N*-arachidonoyl-vanillyl-amine), a nonpungent anandamide–capsaicin hybrid, on ion currents in NG108-15 neuronal cells
Yuk-Keung Lo, Hung-Ting Chiang and Sheng-Nan Wu

593 Diminished production of nitric oxide synthase cofactor tetrahydrobiopterin by rosiglitazone in adipocytes
Philippe Linscheid, Ulrich Keller, Nenad Blau, Dominik J. Schaer and Beat Müller

599 Inhibition of ATP-sensitive K^+-channels by a sulfonylurea analogue with a phosphate group
Katja Hastedt and Uwe Panten

CHEMOTHERAPY AND METABOLIC INHIBITORS

603 Structure activity analysis of the pro-apoptotic, anti-tumor effect of nitrostyrene adducts and related compounds
Sylvia Kaap, Iris Quentin, Dereje Tamiru, Mohammed Shaheen, Kurt Eger and Hans Jürgen Steinfelder

NEUROSCIENCE

611 Antioxidants significantly affect the formation of different classes of isoprostanes and neuroprostanes in rat cerebral synaptosomes
Thomas J. Montine, Kathleen S. Montine, Erin E. Reich, Erin S. Terry, Ned A. Porter and Jason D. Morrow

619 Modulation of [^{3}H] TBOB binding to the rodent $GABA_A$ receptor by simple disaccharides
N. Rezai, C. Duggan, D. Cairns, G. Lees and P.L. Chazot

625 Effects of zinc ion on type A monoamine oxidase in monkey brain mitochondria
Toru Egashira, Fusako Takayama and Kumiko Sakai

HORMONES AND GROWTH FACTORS

629 Insulin and estrogen receptor ligand influence the FGF-2 activities in MCF-7 breast cancer cells
Martine Garnier, Claire Giamarchi, Isabelle Delrieu, Marie-Christine Rio, Patrick Chinestra, Francis Bayard, Marc Poirot and Jean-Charles Faye

GENE EXPRESSION AND DEVELOPMENT

637 Ethanol consumption decreases the synthesis of the mannose 6-phosphate/insulin-like growth factor II receptor but does not decrease its messenger RNA
James Haorah, Richard G. MacDonald, Julie A. Stoner and Terrence M. Donohue Jr.

INFLAMMATION AND IMMUNOPHARMACOLOGY

649 Suppression of human monocyte interleukin-1β production by ajulemic acid, a nonpsychoactive cannabinoid
Robert B. Zurier, Ronald G. Rossetti, Sumner H. Burstein and Bonnie Bidinger

657 Decoy receptor 3 (DcR3) is proteolytically processed to a metabolic fragment having differential activities against Fas ligand and LIGHT
Victor J. Wroblewski, Derrick R. Witcher, Gerald W. Becker, Kelly A. Davis, Shenshen Dou, Radmila Micanovic, Christy M. Newton, Timothy W. Noblitt, John M. Richardson, Ho Yeong Song and John E. Hale

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

669 Delphinidin inhibits endothelial cell proliferation and cell cycle progression through a transient activation of ERK-1/-2
Sophie Martin, Laure Favot, Rachel Matz, Claire Lugnier and Ramaroson Andriantsitohaina

GASTROINTESTINAL AND RENAL PHARMACOLOGY

677 Osthole prevents anti-Fas antibody-induced hepatitis in mice by affecting the caspase-3-mediated apoptotic pathway
Toshihiro Okamoto, Toru Kawasaki and Okio Hino

683 Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes
Jayasree Basivireddy, Molly Jacob, Prabhu Ramamoorthy, Anna B. Pulimood and Kunissery A. Balasubramanian

Corrigendum

697 Corrigendum to "The involvement of L-γ-glutamyl-L-cysteinyl-glycine (glutathione/GSH) in the mechanism of redox signaling mediating $MAPK^{p38}$-dependent regulation of pro-inflammatory cytokine production". [Biochem. Pharma. 63 (2002) 305–320]
John J. Haddad

1 March 2003

Commentary

699 "Multivalent" saccharides: development of new approaches for inhibiting the effects of glycosphingolipid-binding pathogens
Cara-Lynne Schengrund

MOLECULAR AND CELLULAR PHARMACOLOGY

709 Daidzein enhances osteoblast growth that may be mediated by increased bone morphogenetic protein (BMP) production
Tie-Liu Jia, Hong-Zhong Wang, Li-Ping Xie, Xue-Yan Wang and Rong-Qing Zhang

717 Transcriptional suppression of the adrenal cortical peripheral-type benzodiazepine receptor gene and inhibition of steroid synthesis by ginkgolide B
Hakima Amri, Katy Drieu and Vassilios Papadopoulos

731 Melatonin differentially modulates the expression and function of the hMT_1 and hMT_2 melatonin receptors upon prolonged withdrawal
Monica I. Masana, Paula A. Witt-Enderby and Margarita L. Dubocovich

741 Protein glutathiolation in human blood
Wayne A. Kleinman, Despina Komninou, Yvonne Leutzinger, Stephen Colosimo, Julie Cox, Calvin A. Lang and John P. Richie Jr.

747 Minimally modified phosphodiester antisense oligodeoxyribonucleotide directed against the multidrug resistance gene *mdr1*
Imane Brigui, Taraneh Djavanbakht-Samani, Béatrice Jollès, Sophie Pigaglio and Alain Laigle

755 Apoptotic cell death induction by F 11782 a novel dual catalytic inhibitor of topoisomerases I and II
Chantal Etiévant, Anna Kruczynski, Jean-Marc Barret, Dominique Perrin and Bridget T. Hill

765 The role of multidrug resistance proteins MRP1, MRP2 and MRP3 in cellular folate homeostasis
Jan Hendrik Hooijberg, Godefridus J. Peters, Yehuda G. Assaraf, Ietje Kathmann, David G. Priest, Marlene A. Bunni, Anjo J.P. Veerman, George L. Scheffer, Gertjan J.L. Kaspers and Gerrit Jansen

773 Inhibition of 15-lipoxygenases by flavonoids: structure–activity relations and mode of action
Christian David Sadik, Helmut Sies and Tankred Schewe

783 ET_A receptor-mediated Ca^{2+} mobilisation in H9c2 cardiac cells
Francesca Ceccarelli, Maria C. Scavuzzo, Laura Giusti, Gianni Bigini, Barbara Costa, Vittoria Carnicelli, Riccardo Zucchi, Antonio Lucacchini and Maria R. Mazzoni

795 Differential effects of YM440 a hypoglycemic agent on binding to a peroxisome proliferator-activated receptor γ and its transactivation
Eiji Kurosaki, Ryosuke Nakano, Akiyoshi Shimaya, Shigeru Yoshida, Motoko Ida, Takayuki Suzuki, Masayuki Shibasaki and Hisataka Shikama

807 Involvement of nitric oxide/cyclic GMP signaling pathway in the regulation of fatty acid metabolism in rat hepatocytes
Javier García-Villafranca, Alberto Guillén and José Castro

813 Characterization of the molecular interactions of interleukin-8 (CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2
Julie Catusse, Anne Liotard, Bruno Loillier, Didier Pruneau and Jean-Luc Paquet

CHEMOTHERAPY AND METABOLIC INHIBITORS

823 Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2′-deoxyuridine, results in modification of cellular proteins not DNA
Maria V. Sergeeva and Brian E. Cathers

833 An oxidative mechanism of interferon induced priming of the Fas pathway in Fanconi anemia cells
Michal Pearl-Yafe, Drora Halperin, Ayelet Halevy, Henry Kalir, Bella Bielorai and Ina Fabian

NEUROSCIENCE

843 Statin effects on cholesterol micro-domains in brain plasma membranes
Christopher Kirsch, Gunter P. Eckert and Walter E. Mueller

GENE EXPRESSION AND DEVELOPMENT

857 Toxicogenomics of bromobenzene hepatotoxicity: a combined transcriptomics and proteomics approach
Wilbert H.M. Heijne, Rob H. Stierum, Monique Slijper, Peter J. van Bladeren and Ben van Ommen

INFLAMMATION AND IMMUNOPHARMACOLOGY

877 Flavonoids inhibit myelin phagocytosis by macrophages; a structure–activity relationship study
Jerome J. A. Hendriks, Helga E. de Vries, Susanne M.A. van der Pol, Timo K. van den Berg, Eric A. F. van Tol and Christine D. Dijkstra

887 Inhibition of the NF-κB signaling pathway mediates the anti-inflammatory effects of petrosaspongiolide M
Inmaculada Posadas, Maria Carmen Terencio, Antonio Randazzo, Luigi Gomez-Paloma, Miguel Payá and Maria José Alcaraz

897 The effect of sesquiterpene lactones on the release of human neutrophil elastase
Bettina Siedle, Linda Gustavsson, Senia Johansson, Renato Murillo, Victor Castro, Lars Bohlin and Irmgard Merfort

905 Heme oxygenase-1 induction and regulation in unstimulated mouse peritoneal macrophages
Ana María Vicente, María Isabel Guillén and María José Alcaraz

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

911 Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria

Sonata Trumbeckaite, Christane Neuhof, Stephan Zierz and Frank N. Gellerich

15 March 2003

Commentary

917 Corticotropin-releasing hormone (CRH) and immunotolerance of the fetus

Antonis Makrigiannakis, Emmanuel Zoumakis, Sofia Kalantaridou, Nikos Mitsiades, Andreas Margioris, George P. Chrousos and Achilleas Gravanis

MOLECULAR AND CELLULAR PHARMACOLOGY

923 Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors

Seong G. Kim, Kelly A. Soltysiak, Zhan-Guo Gao, Tong-Shin Chang, Eunju Chung and Kenneth A. Jacobson

933 Assessment of sarcoplasmic reticulum Ca^{2+}-uptake during the development of left ventricular hypertrophy

Ramesh C. Gupta, Xiao-Ping Yang, Sudhish Mishra and Hani N. Sabbah

941 p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex

Premnath V. Shetty, Bhagyashree Y. Bhagwat and William K. Chan

949 Opposing mechanisms of NADPH-cytochrome P450 oxidoreductase regulation by peroxisome proliferators

Li-Qun Fan, Jackie Coley, Richard T. Miller, Russell C. Cattley and J. Christopher Corton

961 Peptide G protein agonists from a phage display library

Jutta Hessling, Martin J. Lohse and Karl-Norbert Klotz

969 Kinetic analysis of fluorescein and dihydrofluorescein effluxes in tumour cells expressing the multidrug resistance protein, MRP1

Chantarawan Saengkhae, Chatchanok Loetchutinat and Arlette Garnier-Suillerot

979 Regulation of cyclooxygenase-2 expression by iloprost in human vascular smooth muscle cells. Role of transcription factors CREB and ICER

Svenja Debey, Jutta Meyer-Kirchrath and Karsten Schrör

989 Expression of acetoacetyl-CoA synthetase, a novel cytosolic ketone body-utilizing enzyme, in human brain

Masahiro Ohgami, Noriko Takahashi, Masahiro Yamasaki and Tetsuya Fukui

995 Expression profiles of three isoforms of inositol 1,4,5-trisphosphate receptor in brown adipose tissue of the rat

Kazuaki Kajimoto, Takiko Daikoku, Naoshi Yamazaki, Hiroshi Terada and Yasuo Shinohara

CHEMOTHERAPY AND METABOLIC INHIBITORS

999 *Trypanosoma cruzi*: effect and mode of action of nitroimidazole and nitrofuran derivatives

Juan Diego Maya, Soledad Bollo, Luis J. Nuñez-Vergara, Juan A. Squella, Yolanda Repetto, Antonio Morello, Jacques Périé and Gérard Chauvière

INFLAMMATION AND IMMUNOPHARMACOLOGY

1007 The inhibition of mast cell activation by neutrophil lactoferrin: uptake by mast cells and interaction with tryptase, chymase and cathepsin G

Shaoheng He, Alan R. McEuen, Sally A. Blewett, Ping Li, Mark G. Buckley, Paul Leufkens and Andrew F. Walls

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1017 Down-regulation of bradykinin B_2-receptor mRNA in the heart in pressure-overload cardiac hypertrophy in the rat

Katsutoshi Yayama, Satoshi Matsuoka, Makoto Nagaoka, Eri Shimazu, Masaoki Takano and Hiroshi Okamoto

1 April 2003

Commentaries

1027 Broad-spectrum chemokine inhibitors (BSCIs) and their anti-inflammatory effects *in vivo*

David J. Grainger and Jill Reckless

1035 Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspects

Nuno C. Santos, J. Figueira-Coelho, J. Martins-Silva and Carlota Saldanha

MOLECULAR AND CELLULAR PHARMACOLOGY

1043 Investigation of the cellular mechanism of inhibition of formyl-methionyl-leucyl-phenylalanine-induced superoxide anion generation in rat neutrophils by 2-benzyloxybenzaldehyde

Jih-Pyang Wang, Ling-Chu Chang, Yi-Lee Lin, Mei-Feng Hsu, Chiung-Yun Chang, Li-Jiau Huang and Sheng-Chu Kuo

1053 Resveratrol-induced G_2 arrest through the inhibition of CDK7 and $p34^{CDC2}$ kinases in colon carcinoma HT29 cells

Yu-Chih Liang, Shu-Huei Tsai, Linda Chen, Shoei-Yn Lin-Shiau and Jen-Kun Lin

1061 Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression

Gabriela Tudor, Peter Gutierrez, Angelica Aguilera-Gutierrez and Edward A. Sausville

1077 Effects of D3.49A, R3.50A, and A6.34E mutations on ligand binding and activation of the cannabinoid-2 (CB2) receptor

Wenke Feng and Z.H. Song

1087 Interaction of upstream stimulatory factor proteins with an E-box located within the human *CYP1A2* 5′-flanking gene contributes to basal transcriptional gene activation

George V. Pickwell, Hsueh Shih and Linda C. Quattrochi

1097 Thyroxine-derivatives of lipopeptides: bifunctional dimerization inhibitors of human immunodeficiency virus-1 protease

Julien Dumond, Nicole Boggetto, Hans J. Schramm, Wolfgang Schramm, Masayuki Takahashi and Michèle Reboud-Ravaux

1103 Pharmacological characterisation of a cell line expressing $GABA_{B1b}$ and $GABA_{B2}$ receptor subunits

Warren D. Hirst, Adam J. Babbs, Andrew Green, Jayne A.L. Minton, Tracy E. Shaw, Alan Wise, Simon Q. Rice, Menelas N. Pangalos and Gary W. Price

1115 Concentration dependent mitochondrial effect of amiodarone

Gabor Varbiro, Ambrus Toth, Antal Tapodi, Balazs Veres, Balazs Sumegi and Ferenc Gallyas Jr.

1129 Activation of p53 by the cytoprotective aminothiol WR1065: DNA-damage-independent pathway and redox-dependent modulation of p53 DNA-binding activity

Olivier Pluquet, Sophie North, Marie-Jeanne Richard and Pierre Hainaut

1139 Interaction of the D_{2short} dopamine receptor with G proteins: analysis of receptor/G protein selectivity

Sarah A. Nickolls and Philip G. Strange

1151 Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels

Irina Blumenstein, Ralf Gerhard, Jürgen Ries, Gabor Kottra and Jürgen Stein

CHEMOTHERAPY AND METABOLIC INHIBITORS

1163 Decreased expression of the reduced folate carrier and folypolyglutamate synthetase is the basis for acquired resistance to the pemetrexed antifolate (LY231514) in an L1210 murine leukemia cell line

Yanhua Wang, Rongboa Zhao and I. David Goldman

INFLAMMATION AND IMMUNOPHARMACOLOGY

1171 Polycationic peptides as inhibitors of mast cell serine proteases

Anders Lundequist, Maria Aparecida Juliano, Luiz Juliano and Gunnar Pejler

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1181 Taurine transporter in primary cultured neonatal rat heart cells: a comparison between cardiac myocytes and nonmyocytes

Kyoko Takahashi, Mistuhiro Azuma, Tomoko Yamada, Yuko Ohyabu, Koichi Takahashi, Stephen W. Schaffer and Junichi Azuma

1189 Effects of angiotensin II on vascular endothelial cells: formation of receptor-mediated reactive nitrogen species

Michael J. Mihm, Suvara K. Wattanapitayakul, Sheng-Fu Piao, Dale G. Hoyt and John Anthony Bauer

GASTROINTESTINAL AND RENAL PHARMACOLOGY

1199 Absorption of quercetin-3-glucoside and quercetin-4′-glucoside in the rat small intestine: the role of lactase phlorizin hydrolase and the sodium-dependent glucose transporter

Andrea J. Day, Jennifer M. Gee, M. Susan DuPont, Ian T. Johnson and Gary Williamson

15 April 2003

Commentary

1207 Receptor-mediated adrenocorticoid hormone signaling in ocular tissues

Massoud Mirshahi and Manjul K. Agarwal

MOLECULAR AND CELLULAR PHARMACOLOGY

1215 Iron and transition metal transport into erythrocytes mediated by nifedipine degradation products and related compounds

Donna L. Savigni, Dieter Wege, Garth S. Cliff, Mark L.H. Meesters and Evan H. Morgan

1227 Comparison of the pharmacological antagonism of M_2 and M_3 muscarinic receptors expressed in isolation and in combination

Michael T. Griffin, Jake Ching-Hsuan Hsu, Darakhshanda Shehnaz and Frederick J. Ehlert

1243 Inhibition of the MEK/ERK pathway has no effect on agonist-induced aggregation of human platelets
Archibald McNicol and Elke C.G. Jackson

1251 Cloning and characterisation of the first drug-metabolising canine UDP-glucuronosyltransferase of the 2B subfamily
Matthew G. Soars, Michelle Fettes, Audrey C. O'Sullivan, Robert J. Riley, Brian T. Ethell and Brian Burchell

1261 Oxathiolene oxides: a novel family of compounds that induce ferritin, glutathione *S*-transferase, and other proteins of the phase II response
E. Christine Pietsch, Allison L. Hurley, Elizabeth E. Scott, Benjamin P. Duckworth, Mark E. Welker, Sandra Leone-Kabler, Alan J. Townsend, Frank M. Torti and Suzy V. Torti

1271 Two-step formation of ^{1}H NMR visible mobile lipids during apoptosis of paclitaxel-treated K562 cells
Fabrizia Brisdelli, Egidio Iorio, Arno Knijn, Amalia Ferretti, Donatella Marcheggiani, Luisa Lenti, Roberto Strom, Franca Podo and Argante Bozzi

1281 Cellular bases of the antitumor activity of a 7-substituted camptothecin in hormone-refractory human prostate carcinoma models
Valentina Zuco, Rosanna Supino, Michelandrea De Cesare, Nives Carenini, Paola Perego, Laura Gatti, Graziella Pratesi, Claudio Pisano, Roberta Martinelli, Federica Bucci, Romina Zanier, Paolo Carminati and Franco Zunino

1295 Inhibition of pancreatic stellate cell activation by the hydroxymethylglutaryl coenzyme A reductase inhibitor lovastatin
Robert Jaster, Peter Brock, Gisela Sparmann, Jörg Emmrich and Stefan Liebe

1305 Recognition of DNA modified by antitumor cisplatin by "latent" and "active" protein p53
Miroslav Fojta, Hana Pivonkova, Marie Brazdova, Lucie Kovarova, Emil Palecek, Sarka Pospisilova, Borivoj Vojtesek, Jana Kasparkova and Viktor Brabec

1317 Activation of the coactivator four-and-a-half-LIM-only protein FHL2 and the c-*fos* promoter through inhibition of protein phosphatase 2A
Mona Johannessen, Petter Angell Olsen, Bjarne Johansen, Ole Morten Seternes and Ugo Moens

1329 Peptide and nonpeptide antagonist interaction with constitutively active human AT_1 receptors
Minh Tam Le, Patrick M.L. Vanderheyden, Márta Szaszák, László Hunyady, Veerle Kersemans and Georges Vauquelin

1339 A two-state model of antagonist-AT_1 receptor interaction: further support by binding studies at low temperature
Ilse Verheijen, Jean-Paul De Backer, Patrick Vanderheyden and Georges Vauquelin

CHEMOTHERAPY AND METABOLIC INHIBITORS

1343 Antitumor effect of the cinnamaldehyde derivative CB403 through the arrest of cell cycle progression in the G_2/M phase
Ha-Won Jeong, Dong Cho Han, Kwang-Hee Son, Mi Young Han, Jong-Seok Lim, Ji-Hong Ha, Chang Woo Lee, Hwan Mook Kim, Hyoung-Chin Kim and Byoung-Mog Kwon

1351 Cellular uptake of a catechol iron chelator and chloroquine into *Plasmodium falciparum* infected erythrocytes
Akli Hammadi, Florence Ramiandrasoa, Veronique Sinou, Christophe Rogier, Thierry Fusai, Jacques Le Bras, Daniel Parzy, Gerhard Kunesch and Bruno Pradines

INFLAMMATION AND IMMUNOPHARMACOLOGY

1361 *In vitro* effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes
José Manuel Leiro, Ezequiel Álvarez, Juan Alberto Arranz, Isabel González Siso and Francisco Orallo

1373 Decrease of the inflammatory response and induction of the Akt/protein kinase B pathway by poly-(ADP-ribose) polymerase 1 inhibitor in endotoxin-induced septic shock
Balazs Veres, Ferenc Gallyas Jr., Gabor Varbiro, Zoltan Berente, Erzsebet Osz, Gyorgy Szekeres, Csaba Szabo and Balazs Sumegi

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1383 A novel antioxidant, octyl caffeate, suppression of LPS/IFN-γ-induced inducible nitric oxide synthase gene expression in rat aortic smooth muscle cells
George Hsiao, Ming-Yi Shen, Wen-Chiung Chang, Yu-Wen Cheng, Shiow-Lin Pan, Yueh-Hsiung Kuo, Tzeng-Fu Chen and Joen-Rong Sheu

1 May 2003

Commentary

1393 Modulatory effects of hormones, drugs, and toxic events on renal organic anion transport

Sylvie A. Terlouw, Rosalinde Masereeuw and Frans G.M. Russel

Molecular and Cellular Pharmacology

1407 Discovery and characterization of a potent and selective non-amidine inhibitor of human factor Xa

Amy M. Liang, David R. Light, Monica Kochanny, Galina Rumennik, Lan Trinh, Dao Lentz, Joseph Post, John Morser and Michael Snider

1419 Multidrug resistance correlates with overexpression of Muc4 but inversely with P-glycoprotein and multidrug resistance related protein in transfected human melanoma cells

Yan-Ping Hu, Bushra Haq, Kermit L. Carraway, Niramol Savaraj and Theodore J. Lampidis

1427 Further studies on the interaction of nonpolyglutamatable aminopterin analogs with dihydrofolate reductase and the reduced folate carrier as determinants of *in vitro* antitumor activity

Joel E. Wright, Gregory K. Yurasek, Ying-Nan Chen and Andre Rosowsky

1435 Molecular mechanisms for the activation of Ca^{2+}-permeable nonselective cation channels by endothelin-1 in C6 glioma cells

Yoshifumi Kawanabe, Nobuo Hashimoto and Tomoh Masaki

1441 The effect of valproic acid on drug and steroid glucuronidation by expressed human UDP-glucuronosyltransferases

Brian T. Ethell, Gail D. Anderson and Brian Burchell

1451 Induction of apoptosis in estrogen dependent and independent breast cancer cells by the marine terpenoid dehydrothyrsiferol

Martina K. Pec, Amable Aguirre, Karin Moser-Thier, Javier J. Fernández, Maria L. Souto, Javier Dorta, Federico Diáz-González and Jesús Villar

1463 Important amino acids for the function of the human MT1 melatonin receptor

Tarja Kokkola, Steven M. Foord, Marie-Ange Watson, Olli Vakkuri and Jarmo T. Laitinen

1473 Novel selective and metabolically stable inhibitors of anandamide cellular uptake

Giorgio Ortar, Alessia Ligresti, Luciano De Petrocellis, Enrico Morera and Vincenzo Di Marzo

1483 Beneficial effects of L-carnitine in myoblastic C2C12 cells. Interaction with zidovudine

Béatrice Georges, Stéphane Galland, Caroline Rigault, Françoise Le Borgne and Jean Demarquoy

1489 Evaluation of β-adrenergic receptor subtypes in the human prostate cancer cell line-LNCaP

Rangaswamy Nagmani, David S. Pasco, Ruben D. Salas and Dennis R. Feller

Hormones and Growth Factors

1495 Effect of *in vivo* administered hexachlorobenzene on epidermal growth factor receptor levels, protein tyrosine kinase activity, and phosphotyrosine content in rat liver

Andrea S. Randi, Horacio A. Sancovich, Ana M. Ferramola de Sancovich, Andrea Loaiza, Rodolfo A. Kölliker Frers, Fernanda Spinelli and Diana L. Kleiman de Pisarev

1507 Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum

Takashi Takeuchi, John M. Aletta, Suzanne G. Laychock, Yingrao Tian and Ronald P. Rubin

1515 Established theory of radiation-induced decay is not generalizable to Bolton–Hunter labeled peptides

Amanda C. Doran, Yieh-Ping Wan, Alan S. Kopin and Martin Beinborn

Gene Expression and Development

1521 Frequent co-occurrence of the TATA box mutation associated with Gilbert's syndrome (*UGT*1A1*28) with other polymorphisms of the UDP-glucuronosyltransferase-1 locus (*UGT*1A6*2 and *UGT*1A7*3) in Caucasians and Egyptians

Christoph Köhle, Bernd Möhrle, Peter A. Münzel, Matthias Schwab, Dorothee Wernet, Osama A. Badary and Karl Walter Bock

Inflammation and Immunopharmacology

1529 Rabbit chronic ileitis leads to up-regulation of adenosine *A1/A3* gene products, oxidative stress, and immune modulation

Uma Sundaram, Hamdy Hassanain, Zacharias Suntres, Jun Ge Yu, Helen J. Cooke, Jorge Guzman and Fievos L. Christofi

1539 LAAE-14, a new *in vitro* inhibitor of intracellular calcium mobilization, modulates acute and chronic inflammation

Rut Lucas, Mario Alves, Esther del Olmo, Arturo San Feliciano and Miguel Payá

1551 Effect of sesquiterpene lactones on the expression of the activation marker CD69 and of IL-2 in T-lymphocytes in whole blood
Matjaz Humar, Alfonso J. García-Piñeres, Víctor Castro and Irmgard Merfort

GASTROINTESTINAL AND RENAL PHARMACOLOGY

1565 Effect of acute betaine administration on hepatic metabolism of *S*-amino acids in rats and mice
Sang K. Kim, Kwon H. Choi and Young C. Kim

15 May 2003

Commentary

1575 Evaluation of the probes 2′,7′-dichlorofluorescin diacetate, luminol, and lucigenin as indicators of reactive species formation
Oddvar Myhre, Jannike M. Andersen, Halvor Aarnes and Frode Fonnum

MOLECULAR AND CELLULAR PHARMACOLOGY

1583 Effects of dehydroepiandrosterone on oleic acid accumulation in rat liver
Koichi Imai, Naomi Kudo, Matajiro Koyama and Yoichi Kawashima

1593 *N*-Acetylcysteine enhances UV-mediated caspase-3 activation, fragmentation of E2F-4, and apoptosis in human C8161 melanoma: inhibition by ectopic Bcl-2 expression
Manuel Rieber and Mary Strasberg Rieber

1603 Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells
Thomas Walle, Timothy S. Vincent and U. Kristina Walle

1611 Resistance to phorbol 12-myristate 13-acetate-induced cell growth arrest in an HL60 cell line chronically exposed to a glutathione *S*-transferase π inhibitor
Laurent Gaté, Alexandra Lunk and Kenneth D. Tew

1623 Integrity of extracellular loop 1 of the human cannabinoid receptor 1 is critical for high-affinity binding of the ligand CP 55,940 but not SR 141716A
James W. Murphy and Debra A. Kendall

1633 Mechanisms involved in exogenous C2- and C6-ceramide-induced cancer cell toxicity
Marianne Fillet, Mohamed Bentires-Alj, Valerie Deregowski, Roland Greimers, Jacques Gielen, Jacques Piette, Vincent Bours and Marie-Paule Merville

1643 Dual effect of ebselen on mitochondrial permeability transition
Didier Morin, Roland Zini, Heidi Ligeret, Wendi Neckameyer, Serge Labidalle and Jean-Paul Tillement

1653 Interplay between transcriptional and post-transcriptional regulation of *Cyp2a5* expression
Tina Glisovic, Malin Söderberg, Kyle Christian, Matti Lang and Françoise Raffalli-Mathieu

1663 Quantitative analysis of the Ah receptor/cytochrome P450 CYP1B1/CYP1A1 signalling pathway
Morag C.E. McFadyen, Patrick H. Rooney, William T. Melvin and Graeme I. Murray

1675 N^6-Substituted adenosine derivatives: selectivity, efficacy, and species differences at A_3 adenosine receptors
Zhan-Guo Gao, Joshua B. Blaustein, Ariel S. Gross, Neli Melman and Kenneth A. Jacobson

CHEMOTHERAPY AND METABOLIC INHIBITORS

1685 Enzymatic characterization of recombinant mouse retinal dehydrogenase type 1
Isabelle Gagnon, Gregg Duester and Pangala V. Bhat

1691 Inhibition of microtubule polymerization by 3-bromopropionylamino benzoylurea (JIMB01), a new cancericidal tubulin ligand
Jian-Nong Li, Dan-Qing Song, Yi-He Lin, Qiong-Ying Hu, Lu Yin, George Bekesi, James F. Holland and Jian-Dong Jiang

NEUROSCIENCE

1701 Deregulation of gene expression in fetal oocytes exposed to doxorubicin
Edmundo Bonilla and Jesús del Mazo

STRUCTURAL BIOLOGY

1709 High resolution X-ray structure of potent anti-HIV pokeweed antiviral protein-III
Igor V. Kurinov and Fatih M. Uckun

INFLAMMATION AND IMMUNOPHARMACOLOGY

1719 Inflammation and inducible nitric oxide synthase have no effect on monoamine oxidase activity in glioma cells
Elizabeth Mazzio, Alan Becker and Karam F.A. Soliman

1729 Delivery of pharmacologically active dexamethasone into activated endothelial cells by dexamethasone–anti-E-selectin immunoconjugate

Sigridur A. Ásgeirsdóttir, Robbert J. Kok, Maaike Everts, Dirk K.F. Meijer and Grietje Molema

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1741 Interaction of dimercaptosuccinic acid (DMSA) with angiotensin II on calcium mobilization in vascular smooth muscle cells

Herbert J. Kramer, Vera Mensikova, Angela Bäcker, Harald Meyer-Lehnert and Harvey C. Gonick

1747 Adrenergic receptors in the bovine mammary artery

Iain F. Gow, Evelyn Mitchell and Martin Wait

GASTROINTESTINAL AND RENAL PHARMACOLOGY

1755 TNF-α induces apoptosis of parietal cells

Bruno Neu, Andreas J. Puschmann, Artur Mayerhofer, Peter Hutzler, Johannes Grossmann, Florian Lippl, Wolfgang Schepp and Christian Prinz

1 June 2003

Commentary

1761 Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?

Gang Wei, Jonathan Moss and Chun-Su Yuan

MOLECULAR AND CELLULAR PHARMACOLOGY

1767 Non-caspase-mediated apoptosis contributes to the potent cytotoxicity of the enediyne antibiotic lidamycin toward human tumor cells

Zhen Wang, Qiyang He, Yunyan Liang, Daishu Wang, Yi-Yang Li and Diandong Li

1777 Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$

Wei-Jen Chen, Chun-Yun Chang and Jen-Kun Lin

1787 Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics

Zhen-Hua Xu, Bianca A. Thomae, Bruce W. Eckloff, Eric D. Wieben and Richard M. Weinshilboum

1797 Selection of insulin-producing rat insulinoma (RINm) cells with improved resistance to oxidative stress

Konstantin O. Bloch, Marina Vorobeychik, Karina Yavrians and Pnina Vardi

1807 Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting

Yvette M. Delahoussaye, Michael P. Hay, Frederik B. Pruijn, William A. Denny and J. Martin Brown

1817 An amperometric biosensor with human CYP3A4 as a novel drug screening tool

Shiba Joseph, James F. Rusling, Yuri M. Lvov, Thomas Friedberg and Uwe Fuhr

1827 Large-conductance K^+ channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells

Grazyna Debska, Anna Kicinska, Jerzy Dobrucki, Beata Dworakowska, Ewa Nurowska, Jolanta Skalska, Krzysztof Dolowy and Adam Szewczyk

1835 K-ATP channel independent effects of pinacidil on ATP production in isolated cardiomyocyte or pancreatic β-cell mitochondria

Nicolas Lembert, Lars-Åke Idahl and Hermann P.T. Ammon

1843 Human MDR1 polymorphism: G2677T/A and C3435T have no effect on MDR1 transport activities

Naomi Morita, Toshio Yasumori and Kazuo Nakayama

CHEMOTHERAPY AND METABOLIC INHIBITORS

1853 Preclinical factors affecting the interindividual variability in the clearance of the investigational anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid

Shufeng Zhou, Philip Kestell, Bruce C. Baguley and James W. Paxton

1867 Monoamine oxidase A inhibitory potency and flavin perturbation are influenced by different aspects of pirlindole inhibitor structure

Robert M.G. Hynson, Johan Wouters and Rona R. Ramsay

1875 Cytosolic β-glycosidases for activation of glycoside prodrugs of daunorubicin

Michelle de Graaf, Herbert M. Pinedo, Razi Quadir, Hidde J. Haisma and Epie Boven

HORMONES AND GROWTH FACTORS

1883 Inhibition of leptin release by atrial natriuretic peptide (ANP) in human adipocytes

John N. Fain, Alie Kanu, Suleiman W. Bahouth, George S.M. Cowan Jr. and M. Lloyd Hiler

GENE EXPRESSION AND DEVELOPMENT

1889 *In vivo* activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors
Weisheng Zhang, Anthony Purchio, Kevin Chen, Stacy M. Burns, Christopher H. Contag and Pamela R. Contag

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

1897 Esculetin inhibits Ras-mediated cell proliferation and attenuates vascular restenosis following angioplasty in rats
Shiow-Lin Pan, Ying-Wen Huang, Jih-Hwa Guh, Ya-Ling Chang, Chieh-Yu Peng and Che-Ming Teng

1907 Intracellular signal transduction modulating expression of plasminogen activator inhibitor-1 in adipocytes
Daisuke Goto, Satoshi Fujii, Takeaki Kaneko, Tomoo Furumoto, Taeko Sugawara, A.K.M. Tarikuz Zaman, Shogo Imagawa, Jie Dong, Yukihito Nakai, Tetsuya Mishima, Burton E. Sobel and Akira Kitabatake

Erratum

1915 Erratum to "Characterization of the molecular interactions of interleukin-8(CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2"
Julie Catusse, Anne Liotard, Bruno Loillier, Didier Pruneau and Jean-Luc Paquet

15 June 2003

Commentary

1917 Mitochondrial uncoupling protein 2 in the central nervous system: neuromodulator and neuroprotector
Tamas L. Horvath, Sabrina Diano and Colin Barnstable

MOLECULAR AND CELLULAR PHARMACOLOGY

1923 Characterization of maleimide-activated Ca^{2+} entry in neutrophils
Jih-Pyang Wang

1931 Expression of the murine CB_2 cannabinoid receptor using a recombinant Semliki Forest virus
John M. Olson, Suzanne J. Kennedy and Guy A. Cabral

1943 Effect of 20-*epi*-1α,25-dihydroxyvitamin D_3 on the proliferation of human neuroblastoma: role of cell cycle regulators and the Myc–Id2 pathway
Kiranmai Gumireddy, Naohiko Ikegaki, Peter C. Phillips, Leslie N. Sutton and C. Damodar Reddy

1957 Metabolism of 26,26,26,27,27,27-F_6-1α,25-dihydroxyvitamin D_3 by CYP24: species-based difference between humans and rats
Toshiyuki Sakaki, Natsumi Sawada, Daisuke Abe, Koichiro Komai, Shunichi Shiozawa, Yasuki Nonaka, Kimie Nakagawa, Toshio Okano, Miho Ohta and Kuniyo Inouye

1967 Fast repair of deoxythymidine radical anions by two polyphenols: rutin and quercetin
Chenyang Zhao, Yimin Shi, Wenfeng Wang, Zhongjian Jia, Side Yao, Botao Fan and Rongliang Zheng

1973 Influence of parenteral iron preparations on non-transferrin bound iron uptake, the iron regulatory protein and the expression of ferritin and the divalent metal transporter DMT-1 in HepG2 human hepatoma cells
Barbara Scheiber-Mojdehkar, Brigitte Sturm, Liane Plank, Ingrid Kryzer and Hans Goldenberg

1979 Toxic effects of copper-based antineoplastic drugs (Casiopeinas®) on mitochondrial functions
Alvaro Marín-Hernández, Isabel Gracia-Mora, Lena Ruiz-Ramírez and Rafael Moreno-Sánchez

1991 Long-term-desensitization of prostacyclin receptors is independent of the C-terminal tail
Andreas Hasse, Sigrid M. Nilius, Karsten Schrör and Jutta Meyer-Kirchrath

CHEMOTHERAPY AND METABOLIC INHIBITORS

1997 Enforced expression of the tumor suppressor p53 renders human leukemia cells (U937) more sensitive to 1-[β-D-arabinofuranosyl]cytosine (ara-C)-induced apoptosis
Roy H. Decker, Jay Levin, Lora B. Kramer, Yun Dai and Steven Grant

2009 Dual inhibition of topoisomerase I and tubulin polymerization by BPR0Y007, a novel cytotoxic agent
Jang-Yang Chang, Hsing-Pang Hsieh, Wen-Yu Pan, Jing-Ping Liou, Shian-Jy Bey, Li-Tzong Chen, Jin-Fen Liu and Jen-Shin Song

2021 Reduced concentrations of serum enhance the antiproliferative activity of retinoid-related molecules and accelerate the onset of apoptosis
Francisco J. Lopez-Hernandez, Maria A. Ortiz, Yolanda Bayon and F. Javier Piedrafita

2031 Activation of deoxycytidine kinase by gamma-irradiation and inactivation by hyperosmotic shock in human lymphocytes
Zsolt Csapo, Gergely Keszler, Geza Safrany, Tatjana Spasokoukotskaja, Iannis Talianidis, Maria Staub and Maria Sasvari-Szekely

NEUROSCIENCE

2041 Sarin (nerve agent GB)-induced differential expression of mRNA coding for the acetylcholinesterase gene in the rat central nervous system
Tirupapuliyur V. Damodaran, Katherine H. Jones, Anand G. Patel and Mohamed B. Abou-Donia

2049 Inhibition of the norepinephrine transporter function in cultured bovine adrenal medullary cells by bisphenol A
Yumiko Toyohira, Kensuke Utsunomiya, Susumu Ueno, Kouichiro Minami, Yasuhito Uezono, Reiji Yoshimura, Masato Tsutsui, Futoshi Izumi and Nobuyuki Yanagihara

HORMONES AND GROWTH FACTORS

2055 The fusion of IGF I with stromal cell-derived factor I or α1 proteinase inhibitor alters their mitogenic or chemotactic activities while keeping their ability to inhibit HIV-1-gp120 binding
Carolyn Sandoval, Angelina Stojanova, Marcos R. DiFalco and L. Fernando Congote

INFLAMMATION AND IMMUNOPHARMACOLOGY

2065 Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages
Na Lin, Takashi Sato, Yuji Takayama, Yoshihiro Mimaki, Yutaka Sashida, Masamichi Yano and Akira Ito

2073 Endogenous nitric oxide does not modulate mesenteric mast cell degranulation in rats
Fábio H. Kwasniewski, Wothan Tavares de Lima, Y.S. Bakhle and Sonia Jancar

2081 Analysis of A2a receptor-deficient mice reveals no significant compensatory increases in the expression of A2b, A1, and A3 adenosine receptors in lymphoid organs
Dmitriy E. Lukashev, Patrick T. Smith, Charles C. Caldwell, Akio Ohta, Sergey G. Apasov and Michail V. Sitkovsky

CARDIOVASCULAR AND PULMONARY PHARMACOLOGY

2091 Modification of intracellular free calcium in cultured A10 vascular smooth muscle cells by exogenous phosphatidic acid
Praveen Bhugra, Yan-Jun Xu, Satyajeet Rathi and Naranjan S. Dhalla

2101 Contents of Volume 65

2115 Author Index

2121 Subject Index